As discussed below and as acknowledged on pages 6, 10 and 11 of the Office Action, at least one of the differences between Verba and the present invention is that Verba neither describes nor suggests evaluating at least one of a model and a combination of models using structures that segment gains charts to discover where at least one of a model and a combination of models is under performing. In fact, Verba makes no mention of using gains charts for analyzing the performance of a model or a combination of models.

Verba describes a computer-implemented self-optimizing marketing system that includes a campaign engine (20) for selectively generating and storing a campaign population (50), a customer population data store (66) for storing a customer population (30), and an optimization engine (24). Campaign population (50) has members representing a plurality of marketing campaigns wherein each campaign is characterized by a plurality of campaign attributes that includes a plurality of campaign activities. Campaign engine (20) assembles campaign population members from the campaign activities. Customer population (30) has members representing a plurality of customers and potential customers that are characterized by a plurality of customer attributes. Optimization engine (24) accesses campaign population (50) and customer population (30) to optimize at least one of campaign population (50) and customer population (30). Optimization engine (24) includes a scoring system (73) for ordering the members of at least one of campaign population (50) and customer population (30) such that a set of offers to buy and offers to sell the same resource is created.

Claim 1 recites a method of evaluating marketing campaign data wherein the data is in the form of database scores, stored procedures, and On Line Analytical Processing (OLAP) multidimensional structures, such that the method includes "providing a plurality of analytic models including marketing and risk models...evaluating at least one of a model and a combination of models using structures that segment gains charts to discover where at least one of a model and a combination of models is under performing...evaluating at least one of a model's performance over time and a combination of models' performance over time...and defining user trends."

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Verba does not describe nor suggest a method of evaluating marketing campaign data that includes providing a plurality of analytic models including marketing and risk models, evaluating at least one of a model and a combination of models using structures that segment gains charts to discover where at least one of a model and a combination of models is under performing, evaluating at least one of a model's performance over time and a combination of models' performance over time, and defining user trends. Rather, Verba describes a computer-implemented self-optimizing marketing system that includes a campaign engine for selectively generating and storing a campaign population, a customer population data store for storing a customer population, an optimization engine, and a prediction engine that processes historical data to predict how campaigns can best match buyer to seller.

The Office Action at page 3 asserts that Verba anticipates Claim 1 by disclosing a "marketing system, a structure for the storage and retrieval of various campaign data, and a feedback loop between outbound campaigns and inbound campaigns such that the results of inbound campaigns can be used to monitor and improve the effectiveness of outbound campaigns (column 2, line 45-54)." However, Applicants respectfully submit that the recitation provided in the Office Action as support for this assertion does not describe nor teach evaluating at least one of a model and a combination of models using structures that segment gains charts to discover where at least one of a model and a combination of models is under performing, and evaluating at least one of a model's performance over time and a combination of models' performance over time. In fact, this recitation in Verba makes absolutely no mention of evaluating models or a combination of models, using structures that segment gains charts, or evaluating a model's performance over time. Rather, this recitation in Verba merely describes using the results of inbound campaigns to monitor and improve the effectiveness of outbound campaigns.

Moreover, the Office Action at page 6 clearly states that Verba "does not specifically teach using gains charts for performance analysis." In other words, according to page 6 of the Office Action, Claim 1 of the present invention is not anticipated by Verba.

Furthermore, the Office Action at pages 10-11 further supports the position that Claim 1 is not anticipated by Verba. Specifically, the Office Action provides the reason for the Section 102 rejection in relevant part as follows: "The Verba invention, in connection with the De Ville ModelMax invention, does in fact teach a device that incorporates and segments gains charts in order to evaluate a marketing model." Although Applicants respectfully traverse the suggestion that Verba in connection with the De Ville ModelMax invention teaches the method recited in Claim 1, by combining Verba with De Ville as the reason for the Section 102 rejection, the Office Action further supports the position that Claim 1 of the present invention is not anticipated by Verba. Accordingly, Applicants respectfully submit that Claim 1 is patentable over Verba.

For at least the reasons set forth above, Applicants respectfully request that the 35 U.S.C. § 102(e) rejection of Claim 1 be withdrawn.

Claims 2-8 depend, directly or indirectly, from independent Claim 1. When the recitations of Claims 2-8 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2-8 likewise are patentable over Verba.

Claim 9 recites a system for evaluating marketing campaign data that includes a customer database having historical campaign results, a graphical user interface for presentation of trend analysis data, and a targeting engine embedded with a plurality of analytic models including marketing and risk models, wherein the marketing models include at least one of a net present value/profitability model, a prospect pool model, a net conversion model, an attrition model, a response model, a revolver model, a balance transfer model, and a reactivation model, and the risk models include at least one of a payment behavior prediction model, a delinquency model, a bad debt model, a fraud detection model, a bankruptcy model, and a hit and run model, and wherein the targeting engine is configured to "evaluate at least one of a model and a combination of models using structures that segment gains charts to discover where at least one of a model and a combination of models is under performing...evaluate at least one of a model's

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performance over time and a combination of models' performance over time...and define trends relating to the marketing campaign data."

Verba does not describe nor suggest a system that includes a targeting engine embedded with a plurality of analytic models including marketing and risk models, wherein the marketing models include at least one of a net present value/profitability model, a prospect pool model, a net conversion model, an attrition model, a response model, a revolver model, a balance transfer model, and a reactivation model, and wherein the risk models include at least one of a payment behavior prediction model, a delinquency model, a bad debt model, a fraud detection model, a bankruptcy model, and a hit and run model.

Additionally, Verba does not describe nor suggest a system that includes a targeting engine that is configured to evaluate at least one of a model and a combination of models using structures that segment gains charts to discover where at least one of a model and a combination of models is under performing, evaluate at least one of a model's performance over time and a combination of models' performance over time, and define trends relating to the marketing campaign data.

Rather, Verba describes a computer-implemented self-optimizing marketing system that includes a prediction engine that processes historical data to predict how campaigns can best match buyer to seller. As noted on page 6 of the Office Action, Verba "does not specifically teach using gains charts for performance analysis." Accordingly, Applicants respectfully submit that Claim 9 is patentable over Verba.

For at least the reasons set forth above, Applicants respectfully request that the 35 U.S.C. § 102(e) rejection of Claim 9 be withdrawn.

Claims 11-19 depend, directly or indirectly, from independent Claim 9. When the recitations of Claims 11-19 are considered in combination with the recitations of Claim 9, Applicants submit that dependent Claims 11-19 likewise are patentable over Verba.

For at least the reasons set forth above, Applicants respectfully request that the Section 102 rejection of Claims 1-9, and 11-19 be withdrawn.

The rejection of Claims 8, 19, and 20 under 35 U.S.C. § 103(a) as being unpatentable over Verba et al. (U.S. Patent No. 6,236,977) ("Verba") in view of Barry de Ville, <u>Direct Marketing with ModelMax</u>, Marketing Research (Spring 1996) ("De Ville"), is respectfully traversed.

Verba is described above. De Ville describes a neural network modeling software known as ModelMax, which is used to develop predictive models in direct and database marketing tasks. (See De Ville, page 56). ModelMax is a computer software that automates many of the tasks, such as target mailings, involved in conducting direct marketing campaigns. (See De Ville, page 56). ModelMax uses seven steps to construct a direct mailing campaign that include: (i) a host data set that includes results from previous campaigns, purchase behavior, and other customer characteristics; (ii) a training sample that is selected from the host data set to grow a neural model; (iii) a validation sample that is drawn from the host data set to test reproducibility and accuracy of the neural model; (iv) a neural model for selecting strong predictors and eliminating redundant predictors; (v) a validation of the predictive model to evaluate whether the model is likely to yield good results in a live direct marketing campaign; (vi) a scoring that calculates the predictive probability of purchase for each record on the host data set; and (vii) a profiling that evaluates the performance of the campaign. (See De Ville, pages 57-58).

Claim 8 depends from independent Claim 1. Claim 1 recites a method of evaluating marketing campaign data that includes "providing a plurality of analytic models including marketing and risk models...evaluating at least one of a model and a combination of models using structures that segment gains charts to discover where at least one of a model and a combination of models is under performing...evaluating at least one of a model's performance over time and a combination of models' performance over time...and defining user trends."

Neither Verba nor De Ville, considered alone or in combination, describe or suggest a method of evaluating marketing campaign data that includes providing a plurality of analytic

models including marketing and risk models, evaluating at least one of a model and a combination of models using structures that segment gains charts to discover where at least one of a model and a combination of models is under performing, evaluating at least one of a model's performance over time and a combination of models' performance over time, and defining user trends.

Rather, Verba describes a computer-implemented self-optimizing marketing system that includes an optimization engine that includes a scoring system for ordering members of at least one of a campaign population and customer population such that a set of offers to buy and offers to sell the same resource is created; and De Ville describes a neural network modeling software known as ModelMax that is used to automate many of the tasks involved in conducting direct marketing campaigns.

Although De Ville mentions at page 58 that the "primary validation tool provided by ModelMax is the lift or gains chart", De Ville does not describe nor teach evaluating at least one of a model and a combination of models using structures that segment gains charts to discover where at least one of a model and a combination of models is under performing, and evaluating at least one of a model's performance over time and a combination of models' performance over time. In fact, De Ville makes no mention of using gains charts to discover where a combination of models is under performing, and evaluating a model's performance or a combination of models' performance over time. Rather, De Ville describes using a gains chart as a primary validation tool for the predictive performance of a single neural model at a single point in time. Accordingly, Applicants respectfully submit that Claim 1 is patentable over Verba in view of De Ville.

When the recitations of Claim 8 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claim 8 likewise is patentable over Verba in view of De Ville.

Claim 19 depends from independent Claim 9. Claim 9 recites a system for evaluating marketing campaign data that includes a customer database having historical campaign results, a

graphical user interface for presentation of trend analysis data, and a targeting engine embedded with a plurality of analytic models including marketing and risk models, wherein the marketing models include at least one of a net present value/profitability model, a prospect pool model, a net conversion model, an attrition model, a response model, a revolver model, a balance transfer model, and a reactivation model, and the risk models include at least one of a payment behavior prediction model, a delinquency model, a bad debt model, a fraud detection model, a bankruptcy model, and a hit and run model, and wherein the targeting engine is configured to "evaluate at least one of a model and a combination of models using structures that segment gains charts to discover where at least one of a model and a combination of models is under performing...evaluate at least one of a model's performance over time and a combination of models' performance over time...and define trends relating to the marketing campaign data."

Neither Verba nor De Ville, considered alone or in combination, describe or suggest a system that includes a targeting engine embedded with a plurality of analytic models including marketing and risk models, wherein the marketing models include at least one of a net present value/profitability model, a prospect pool model, a net conversion model, an attrition model, a response model, a revolver model, a balance transfer model, and a reactivation model, and wherein the risk models include at least one of a payment behavior prediction model, a delinquency model, a bad debt model, a fraud detection model, a bankruptcy model, and a hit and run model.

Additionally, neither Verba nor De Ville, considered alone or in combination, describe or suggest a system that includes a targeting engine that is configured to evaluate at least one of a model and a combination of models using structures that segment gains charts to discover where at least one of a model and a combination of models is under performing, evaluate at least one of a model's performance over time and a combination of models' performance over time, and define trends relating to the marketing campaign data.

Rather, Verba describes a computer-implemented self-optimizing marketing system that includes an optimization engine that includes a scoring system for ordering members of at least

one of a campaign population and customer population such that a set of offers to buy and offers to sell the same resource is created; and De Ville describes a neural network modeling software known as ModelMax that is used to automate many of the tasks involved in conducting direct marketing campaigns. Accordingly, Applicants respectfully submit that Claim 9 is patentable over Verba in view of De Ville.

When the recitations of Claim 19 are considered in combination with the recitations of Claim 9, Applicants submit that dependent Claim 19 likewise is patentable over Verba in view of De Ville.

Claim 20 recites a method of evaluating marketing campaign data that includes "providing a plurality of analytic models including marketing and risk models, the marketing models include at least one of a net present value/profitability model, a prospect pool model, a net conversion model, an attrition model, a response model, a revolver model, a balance transfer model, and a reactivation model, the risk models include at least one of a payment behavior prediction model, a delinquency model, a bad debt model, a fraud detection model, a bankruptcy model, and a hit and run model...generating gains charts by comparing marketing campaign customer lists to corresponding marketing campaign results...evaluating at least one of a model and a combination of models by using structures that segment gains charts to identify where at least one of a model and a combination of models is under performing...evaluating over time and over a plurality of marketing campaigns at least one of a model's performance and a combination of models' performance...and identifying user defined trends including identifying trends within segments by analyzing structures of a plurality of marketing campaigns in chronological order."

Neither Verba nor De Ville, considered alone or in combination, describe or suggest a method of evaluating marketing campaign data that includes providing a plurality of analytic models including marketing and risk models, generating gains charts by comparing marketing campaign customer lists to corresponding marketing campaign results, evaluating at least one of a model and a combination of models by using structures that segment gains charts to identify

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where at least one of a model and a combination of models is under performing, evaluating over time and over a plurality of marketing campaigns at least one of a model's performance and a combination of models' performance, and identifying user defined trends including identifying trends within segments by analyzing structures of a plurality of marketing campaigns in chronological order.

Rather, Verba describes a computer-implemented self-optimizing marketing system that includes an optimization engine that includes a scoring system for ordering members of at least one of a campaign population and customer population such that a set of offers to buy and offers to sell the same resource is created; and De Ville describes a neural network modeling software known as ModelMax that is used to automate many of the tasks involved in conducting direct marketing campaigns. Accordingly, Applicants respectfully submit that Claim 20 is patentable over Verba in view of De Ville.

Notwithstanding the above, the rejection of Claims 8, 19, and 20 under 35 U.S.C. § 103(a) as being unpatentable over Verba in view of De Ville is further traversed on the grounds that the Section 103 rejection of the presently pending claims is not a proper rejection. Obviousness cannot be established by merely suggesting that it would have been obvious to one of ordinary skill in the art to modify Verba using the teachings of De Ville. More specifically, as is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art.

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As the Federal Circuit has recognized, obviousness is not established merely by combining references having different individual elements of pending claims. Ex parte Levengood, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993). MPEP 2143.01. Rather, there must be some suggestion, outside of Applicants' disclosure, in the prior art to combine such references, and a reasonable expectation of success must be both found in the prior art, and not based on Applicants' disclosure. In re Vaeck, 20 U.S.P.Q.2d 1436 (Fed. Cir. 1991). In the present case, neither a suggestion or motivation to combine the prior art disclosures, nor any reasonable expectation of success has been shown.

Neither Verba nor De Ville, considered alone or in combination, describe nor suggest the claimed combination. Rather, the present Section 103 rejection appears to be based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Specifically, Verba is cited for teaching a database modeling system where different kinds of information can be input to and read from the system. De Ville is cited for teaching a direct marketing campaign evaluation software product called ModelMax where the "primary validation tool provided by ModelMax is the lift or gains chart." Since there is no teaching nor suggestion for the combination of Verba and De Ville, the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicants request that the Section 103 rejection of Claims 8, 19, and 20 be withdrawn.

For at least the reasons set forth above, Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of Claims 8, 19, and 20 be withdrawn.

The rejection of Claim 10 under 35 U.S.C. § 103(a) as being unpatentable over Verba et al. (U.S. Patent No. 6,236,977) ("Verba") in view of Microsoft Press Computer Dictionary Third Ed., "Definition of OLAP" (1997) ("Microsoft"), is respectfully traversed.

Verba is described above. Microsoft defines "OLAP database" as "a relational database system capable of handling queries more complex than those handled by standard relational

databases, through multidimensional access to data (viewing the data by several different criteria), intensive calculation capability, and specialized indexing techniques." (See Microsoft, page 339). Microsoft does not, however, describe nor suggest a system for evaluating marketing campaign data that includes a targeting engine configured to evaluate models and define trends relating to the marketing campaign data.

Claim 10 depends from independent Claim 9. Claim 9 recites a system for evaluating marketing campaign data that includes "a targeting engine embedded with a plurality of analytic models including marketing and risk models...and wherein the targeting engine is configured to evaluate at least one of a model and a combination of models using structures that segment gains charts to discover where at least one of a model and a combination of models is under performing...evaluate at least one of a model's performance over time and a combination of models' performance over time...and define trends relating to the marketing campaign data."

Neither Verba nor De Ville, considered alone or in combination, describe or suggest a system for evaluating marketing campaign data that includes a targeting engine embedded with a plurality of analytic models including marketing and risk models, wherein the targeting engine is configured to evaluate at least one of a model and a combination of models using structures that segment gains charts to discover where at least one of a model and a combination of models is under performing, evaluate at least one of a model's performance over time and a combination of models' performance over time, and define trends relating to the marketing campaign data.

Rather, Verba describes a computer-implemented self-optimizing marketing system that includes an optimization engine that includes a scoring system for ordering members of at least one of a campaign population and customer population such that a set of offers to buy and offers to sell the same resource is created; and Microsoft defines an OLAP database. Accordingly, Applicants respectfully submit that Claim 9 is patentable over Verba in view of Microsoft.
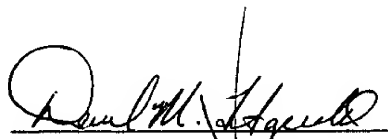
When the recitations of Claim 10 are considered in combination with the recitations of Claim 9, Applicants submit that dependent Claim 10 likewise is patentable over Verba in view of Microsoft.

Notwithstanding the above, the rejection of Claim 10 under 35 U.S.C. § 103(a) as being unpatentable over Verba in view of Microsoft is further traversed on the grounds that the Section 103 rejection of the presently pending claims is not a proper rejection. Obviousness cannot be established by merely suggesting that it would have been obvious to one of ordinary skill in the art to modify Verba using the teachings of Microsoft. Neither Verba nor Microsoft, considered alone or in combination, describe nor suggest the claimed combination. Rather, the present Section 103 rejection appears to be based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Since there is no teaching nor suggestion for the combination of Verba and Microsoft, the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicants request that the Section 103 rejection of Claim 10 be withdrawn.

For at least the reasons set forth above, Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of Claim 10 be withdrawn.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Samra et al.   :
                                           :   Art Unit: 3623
Serial No.: 09/474,631   :
                                           :   Examiner: Eric T. Shaffer
Filed: December 29, 1999   :
                                           :
For: METHODS AND SYSTEMS   :
        FOR ANALYZING   :
        HISTORICAL TRENDS IN   :
        MARKETING CAMPAIGNS   :

SUBMISSION OF MARKED UP CLAIMS

Hon. Commissioner for Patents
Washington, D.C. 20231

Submitted herewith are marked up Claims in accordance with 37 C.F.R. 1.121(c)(1)(ii).

IN THE CLAIMS

1. (twice amended) A method of evaluating marketing campaign data, the data being in the form of database scores, stored procedures, and On Line Analytical Processing (OLAP) multidimensional structures, said method comprising the steps of:

providing a plurality of analytic models including marketing and risk models;

evaluating at least one of a model and a combination of models using structures that segment gains charts to discover where at least one of a model and a combination of models is under performing; [and]

evaluating at least one of a [the] model's performance over time and a combination of models' performance over time; and [discovering user defined trends.]

defining user trends.

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9. (twice amended) A system for evaluating marketing campaign data, said system comprising:

a customer database further comprising historical campaign results;

a graphical user interface for presentation of trend analysis data; and

[a targeting engine configured to evaluate models and define trends relating to the marketing campaign data.]

a targeting engine embedded with a plurality of analytic models including marketing and risk models, the marketing models include at least one of a net present value/profitability model, a prospect pool model, a net conversion model, an attrition model, a response model, a revolver model, a balance transfer model, and a reactivation model, the risk models include at least one of a payment behavior prediction model, a delinquency model, a bad debt model, a fraud detection model, a bankruptcy model, and a hit and run model, wherein the targeting engine is configured to:

evaluate at least one of a model and a combination of models using structures that segment gains charts to discover where at least one of a model and a combination of models is under performing;

evaluate at least one of a model's performance over time and a combination of models' performance over time; and

define trends relating to the marketing campaign data.

20. (once amended) A method of evaluating marketing campaign data, the data being in the form of customer lists, database scores, stored procedures, and On Line Analytical Processing (OLAP) multidimensional structures, said method comprising the steps of:

providing a plurality of analytic models including marketing and risk models, the marketing models include at least one of a net present value/profitability model, a prospect pool

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model, a net conversion model, an attrition model, a response model, a revolver model, a balance transfer model, and a reactivation model, the risk models include at least one of a payment behavior prediction model, a delinquency model, a bad debt model, a fraud detection model, a bankruptcy model, and a hit and run model;
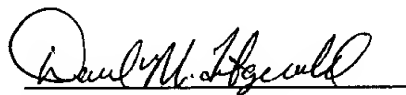
generating gains charts by comparing marketing campaign customer lists to corresponding marketing campaign results;

evaluating at least one of a model and a combination of models by using structures that segment gains charts to identify where at least one of a model and a combination of models is under performing;

evaluating over time and over a plurality of marketing campaigns at least one of a [the] model's performance and a combination of models' performance [over time and over a plurality of marketing campaigns]; and

identifying user defined trends including identifying trends within segments by analyzing structures of a plurality of marketing campaigns in chronological order.

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